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OF A COURSE OF

CHEMICAL PHYSICS

BY

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**A PLAN of a COURSE
OF
CHEMICAL LECTURES.**

INTRODUCTION.

A Brief Historical account of the Rise and Progress of Chemistry.

Chemical Analysis explained.

Definition of Chemical Principles; and how far Air, Water, Earth, and Fire, may be considered as such.

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Minium restored to its Metallic form, by fusing it with Iron filings.

The principal Chemical Terms explained: the Furnaces, Vessels, and Instruments shewn; and the Operations illustrated by Experiments.

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Mercury

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Gums.

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Vinegar concentrated by *Frost*.

Vinegar

Vinegar distilled, its Phlogon, Acid, and Extracts.

Extract of Vinegar distilled, its Acid, Empyreumatic Oil, and Caput Mortuum.

Vinegar concentrated by distillation.

Distilled Vinegar combined with Absorbent Earths.

Distilled Vinegar combined with fixed Alkali of Tartar. — Sal Diureticus, or Terra Foliata Tartari.

Distilled Vinegar combined with Salt of Kelp.

Distilled Vinegar combined with Volatile Alkali. — Spiritus Mindereri.

Tartarum Solubile and Sel de Saignette decomposed by distilled Vinegar.

Sal Diureticus dissolved in Spirit of Wine.

Acetum Radicatum procured by distilling Sal Diureticus with Acid of Vitriol.

Acetum Radicatum, and an inflammable Spirit produced by Distillation from Saccharum Saturni, and from Verdegris.

Of Preparations with Spirit of Wine.

Spirit of Wine combined by Distillation with the Spiritus Rector and Essential Oil of Plants.

Lavender, and Hungary Water.

Solution

Solution of Essential Oils in Spirit of Wine.

Solution of Resins in Spirit of Wine.

Of Tinctures, and such Substances as afford a Tincture both to Spirit of Wine, and to Water, Rhubarb, China Root, Peruvian Bark, &c.

Tincture of Myrrh, and it's Resinous and Gummy Part.

Tincture of Aloes, and it's Resinous and Extractive Part.

Tincture of Jalap, and it's Resinous and Extractive Part.

OF VERNISHES.

Different Kinds of Vernishes.

OF THE COLOURING MATTER OF VEGETABLES.

The Colouring-Matter of Saffron extracted by Spirit of Wine, and by Water.

The green-colouring-Matter of Vegetables extracted by Spirit of Wine, and by Oils.

The red-colouring-Matter of Alkanet Root extracted by Oils.

Tincture

Tincture of Roses — Colouring-Matter of Roses ex-
tracted by an Acid.

Colouring-Matter of Cloves extracted by Fixed
Alkali, and the Method of Dying with it.

Colours obtained from Artichokes by digesting with
Volatile Alkali, and the Method of Dying with it.

Colour of Brazil Wood extracted
Of Lakes.

Of the Blue-Colouring-Matter of *Amr* Vegetables
which comes over in distillation with Spirit of
Wine.

Milk distilled; it's Phlegm, and the Saline and oily
Parts which remain after the Phlegm is distilled
off.

The Saline Part of the above Residuum separated
from the oily Part by means of Water.

Distillation of the Residuum of Milk which has
been deprived of it's Phlegm; it's Acid, Empy-
reumatic Oil, Volatile Alkali, and Caput Mor-
tuum.

Of Wine.

Congelation of Milk by Acids, and the Salt or Sugar
thereby obtained.

Congelation of Milk by Alkalies.

F **O**
Congelation of Milk by Spirit of Wine.

Congelation

Tincture of Roses — Colouring Matter of Roses extracted by an Acid.

Colouring Matter of Animals — Fixed Alkali, and the Method of Dying with it.

Of the Acid which is called a Volatile Acid and is called Oil; and the Method of Dyeing with it.

Colour of Brazil Wood, and Margraaf's Analysis of Ant.

Of Laker.

Of the Blue-Colouring Matter of some Vegetables which comes over in distillation with Spirit of Wine.

Milk distilled; it's Phlegm, and the Saline and oily Parts which remain after the Phlegm is distilled off.

The saline Part of the above Residuum separated from the oily Part by means of Water.

Distillation of the Residuum of Milk which has been deprived of it's Phlegm; it's Acid, Empyreumatic Oil, Volatile Alkali, and Caput Mortuum.

Of Whey.

Coagulation of Milk by Acids, and the Salt or Sugar thereby obtained.

Coagulation of Milk by Alkalies.

Coagulation of Milk by Spirit of Wine.

Coagulation

(107)
Coagulation of Whites of Eggs and of the Serum of Blood by the union of Acids with Earths or Metallic Substances.

Cherfe. Harts-Horn Collected in the open Fire.

Cornu-Cervi Philosophical.

Gelly of Harts-Horn; Glass Portable Soup.

OF BLOOD AND THE LYMPHATIC JUICES.

Hamburg's Analysis of Blood.

Coagulation of Whites of Eggs and of the Serum of Blood by boiling-Water, by Acids, by Spirit of Wine, &c. and their use in Clarification.

Whites of Eggs distilled with a Heat not exceeding that of boiling Water, their Phlegm and Residuum.

Residuum distilled; its Volatile Alkali, Empyreumatic Oil, and Caput Mortuum.

Essence of Urine distilled; its Volatile Alkaline Spirit, Volatile Alkaline Salt, Oil, Sal Ammoniac, and Caput Mortuum.

OF FAT.

Suet distilled; its Acid, congealed Oil, and Caput Mortuum.

OF HORNS.

Distillation of Harts-Horn; its Volatile Alkaline Spirit and Salt, its Oil, and Caput Mortuum.

(144)
Purification of Volatile Alkaline Spirit and Salt.
Oleum Animalis.

Harts-Horn Calcined in the open Fire.

Cornu-Cervi Philosophice Calcinationem.

Gelly of Harts-Horn; Glas, Portable Soup.

OF BLOOD AND THE LYMPHATIC JUICES
OF EXCREMENTS.

Homburg's Analysis of Human Faeces.

OF URINE.
Blood by Boiling-Water, by Spirit of
Wine, &c. and their other classification.

Fresh Urine distilled; its Phlegm and Extract.

Fresh Salt of Urine separated from Urine by Crystallization.

Margraaf's Experiments on the Fixed Salt of Urine.

Extract of fresh Urine distilled; its Volatile Alkaline Spirit, Volatile Alkaline Salt, Oil, Sal Ammoniac, and Caput Mortuum.

Sea Salt obtained from the Caput Mortuum.

Volatile Alkali obtained by distilling fresh Urine with Lime.

Volatile Alkali obtained by distilling fresh Urine with fixed Alkali.

of

Of Phosphorus is given in
Vol. II. Alkali of putrid Urine.

Phosphorus.

History of Kunkel's Phosphorus.

Phosphorus made according to Margraaf's method.

Purification of Phosphorus.

Several Experiments with Phosphorus.

THE END.

Official Inspection and Approval



THE END